

SMW Single-Controller Jailbreak Installation

SethBling

Overview

1. Delete save file C.
2. Use Powerup Incrementation twice to get to powerup state \$05.
3. Use slow 1-up ACE to put \$E3 at \$00F0
4. Use fast 1-up ACE to get to powerup state \$15 (STY \$19)
5. Use mushroom ACE to set \$7F8028 to \$0F. This makes the timer infinite.
6. Set up multi-byte write for mushroom ACE.
7. Write bootstrap
 - a. Write coin display
 - b. Write auto index decrement
 - c. Write the rest of the bootstrap
8. Use bootstrap to write and execute installer.

Multi-Byte Write Overview

LDA \$yoshi

LDY \$pswitch

STA [\$F5],y

RTS

1. Write \$81 to \$6F
2. Replace the \$F5 in the multi-byte write code with \$6E (which now contains \$7F8130)
3. Coin display: write LDY \$94 at 7F8167 and STY \$0DBF at \$7F816D
4. Auto decrement: LDX \$18; DEC \$6C,X
5. Index display: LDX \$EC; STX \$0F48
6. Finish bootstrap: BEQ payload; TYA; STA 7F8200,X; RTL
7. Move index to \$0D or just after and start writing RTL over and over until index hits 255

Procedure

Initial Setup

1. Put a USA Super Mario World cartridge into your console.
2. Plug in a single controller into the first controller port.

3. Start the game.
4. Delete all three save files (even if it says they're already empty).
5. Start a new game on save file A.
6. Beat Yoshi's Island 2, getting Yoshi and the Midway Point.
7. Beat Yoshi's Island 3, getting Fire Power.
8. Perform [powerup incrementation](#) twice.
9. Ditch Yoshi.

The first ACE

This ACE will put the value \$E3 at \$F0.

1. Enter Yoshi's Island 2 **without** Yoshi.
2. Run to the right, kill the Chargin' Chuck (actually optional) and the three moles after that.
 - a. Don't kill anything else or get the midway point



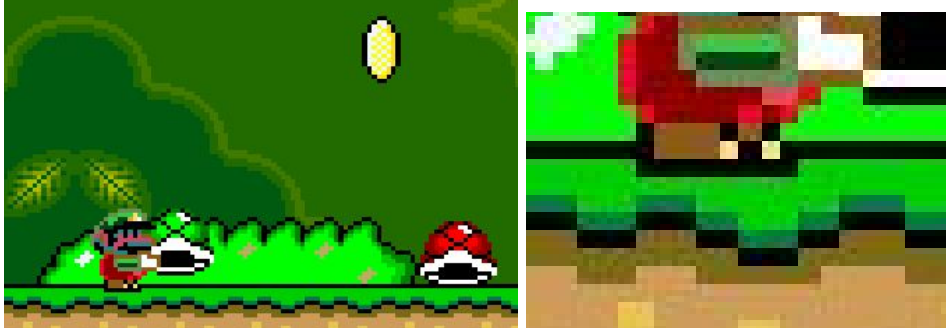
3. Run back left, kill the koopa next to the green shell, and pick up the shell



4. Kill the koopa near the red shell



5. Kick the green shell up here



6. While the screen is scrolling left with Mario's movement, stand here (the screen scroll is important, if you overshoot, walk back to the right and try again).



7. Kick the red shell left. This will destroy the green shell and unload the red shell.
8. Run right then left to reload the red shell
9. Scroll the screen left without losing the red shell (kick the shell up or something)
10. Walk left to this position without overshooting (the screen scroll is important):



11. Turn to the right, and without letting the screen scroll at all, kick the shell up into the Yoshi block (it doesn't matter if you also hit the coin block along the way).
12. Stomp the red shell.
13. Spit Shells

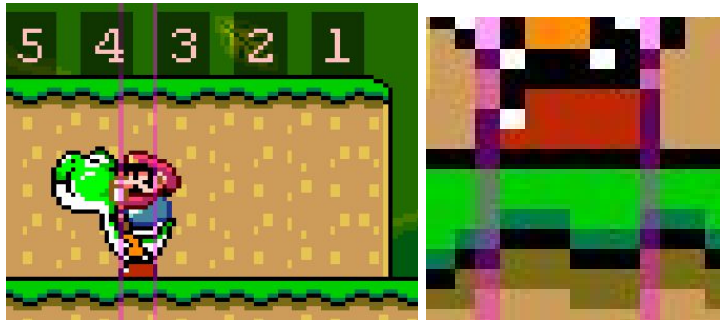
The first shell is on the ground to the left of the eight-koopas ledge. Run past all eight koopas and pick it up in your mouth to do the first spit. If you get hit along the way, it's not a problem, just make sure you get back on Yoshi before he runs off screen.

- a. A9 (to the left of all the ledge koopas)



For the remaining spits, you should run to the left to unload all the ledge koopas, then run to the right past all the koopas and grab the rightmost koopa to perform the spit with. Each time you do a spit, run left to unload all the ledge koopas again and repeat for the next spit.

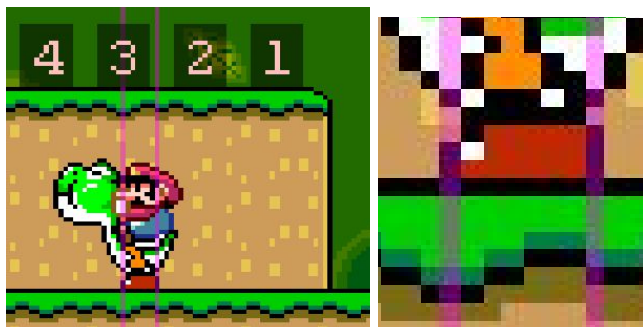
b. E3



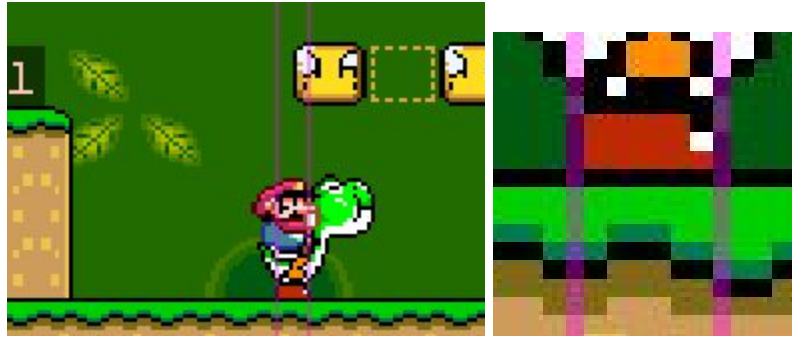
c. 85



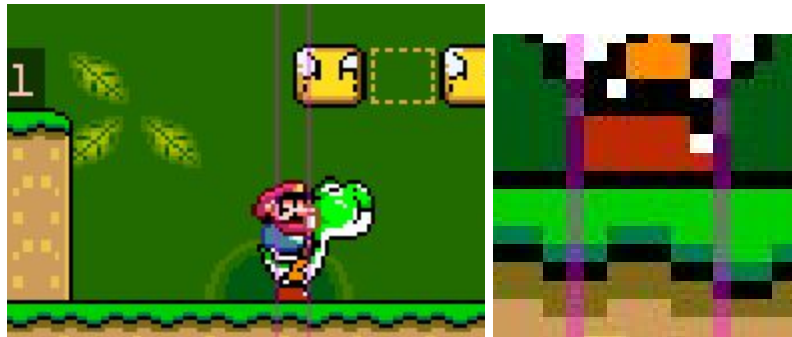
d. F0



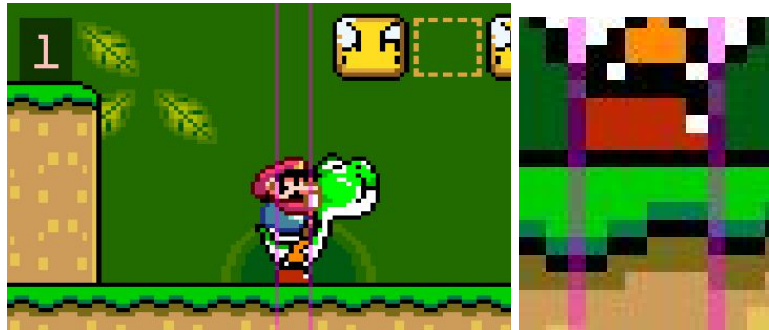
e. 68



f. 68

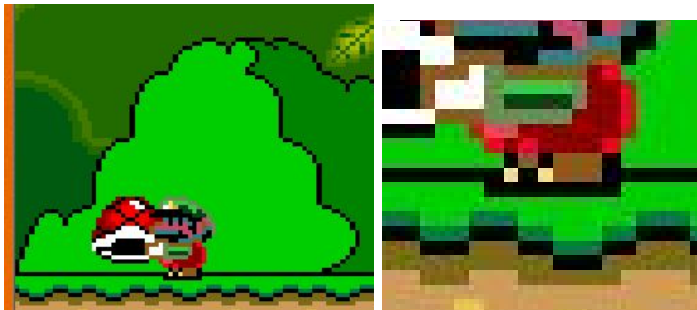


g. 60



14. After the final shell spit, press A to jump off yoshi and go left

15. Grab the shell from the ledge koopa and kick it up/left at on the very left edge of the level at this exact pixel:



16. Go past the midway point, where you killed the three moles, and jump off Yoshi while facing left here:



17. Stand under the Yoshi block (the middle block)



18. Screen scroll right by holding R

19. Hit the Yoshi block to spawn a 1-up and immediately run right so that the egg doesn't spawn its shell fragments on screen (but not so fast that the 1-Up despawns)
 a. The 1-Up can be a little bit off-screen without despawning.



20. Walk to the right until you hit the ledge near Yoshi, letting the 1-up chase behind you, until you're pressing against the ledge to the right



21. Just before the 1-up hits you, pause and hold **L, down, Y** and **B**
22. Unpause and then immediately press and hold **select** (along with the other four buttons)
23. You can let go of those five buttons once the 1-up hits you.

Getting Powerup State \$15

1. Get back on Yoshi
2. Get the midway point.
3. With the screen scroll following Mario rightward, walk against these pipes then turn around and position Mario/Yoshi here.



4. Start+select while riding Yoshi at this position.
5. Re-enter Y12 at the midway
6. Run to the right, past the 3 moles in the hills.
7. Just past the level's only infinite pit, there's a mole in the ground. Eat it.



8. Jump back left across the pit.
9. Continue right through the level until you see the P Switch.



10. Grab the P Switch in Yoshi's mouth (make sure you don't swallow it)
11. Spit the P Switch out of Yoshi's mouth on the first ledge.



12. Stand at this pixel on the second ledge and kick the P switch upward.





13. Get back on Yoshi and head toward the beginning of the level, killing the two koopas and shells on the way.

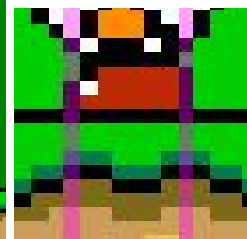


14. Eat/spit the rightmost red koopa on the ledge (it's an extra one)

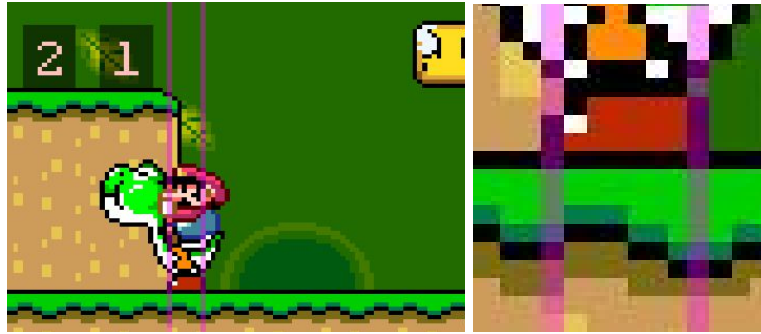


15. Spit shells for arbitrary code

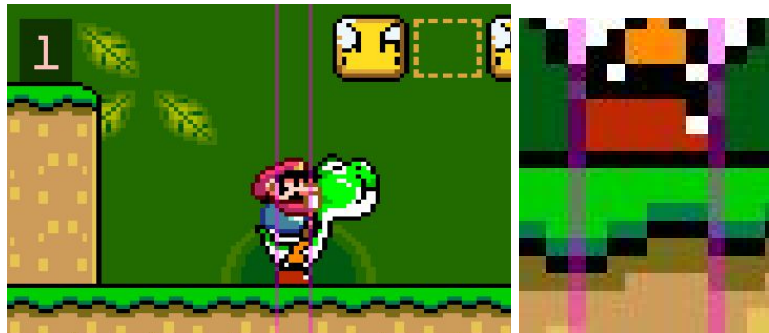
- a. 84



- b. 19



c. 60



16. Go under the Yoshi block (not pixel-perfect), you can dismount Yoshi or not

17. Screen scroll all the way left
18. Hit the Yoshi block to spawn a 1-up, and run right
19. Walk right, letting the 1-up chase you, until you hit this ledge
20. Once you're against the ledge, you can let the 1-up hit you.



Getting Infinite Time

1. Start+select while riding Yoshi

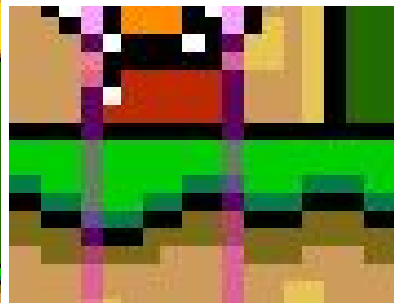
2. Re-enter Y12 at the midway
3. Run to the right, past the 3 moles in the hills.
4. Just past the level's only infinite pit, there's a mole in the ground. Eat it.
5. Jump back left across the pit.
6. Continue right through the level until you see the P Switch.
7. Grab the P Switch in Yoshi's mouth (make sure you don't swallow it)
8. Go toward the beginning of the level, killing the two koopas and their shells along the way
9. Stand at this pixel and kick the P Switch upward



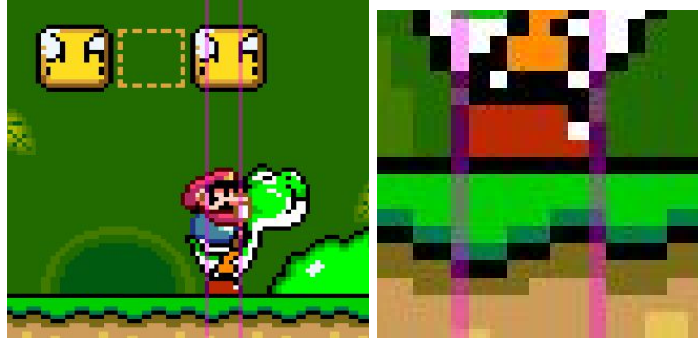
- 10.
11. Eat/spit the rightmost red koopa on the ledge (it's an extra one)
12. Spit shells
 - a. A9 (to the left of all the ledge koopas)



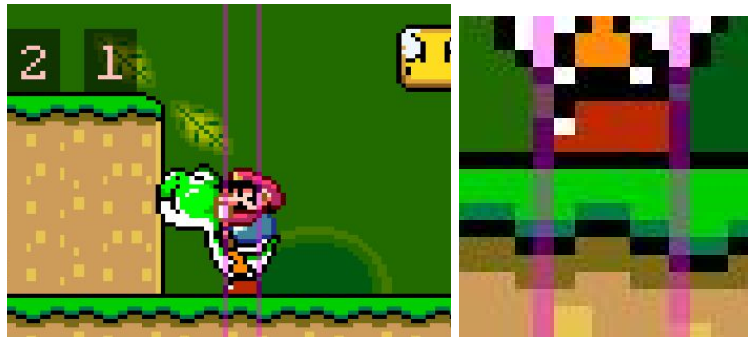
- b. 0F



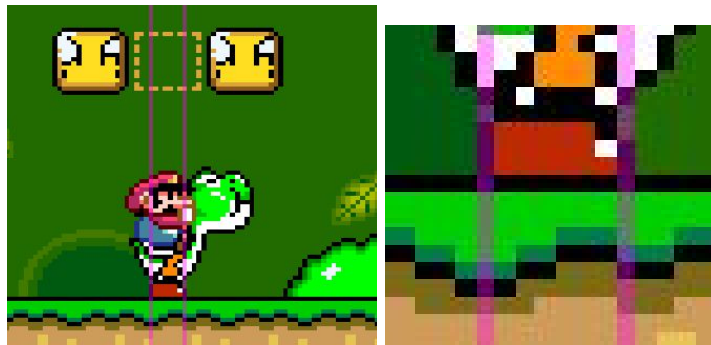
- c. 8F



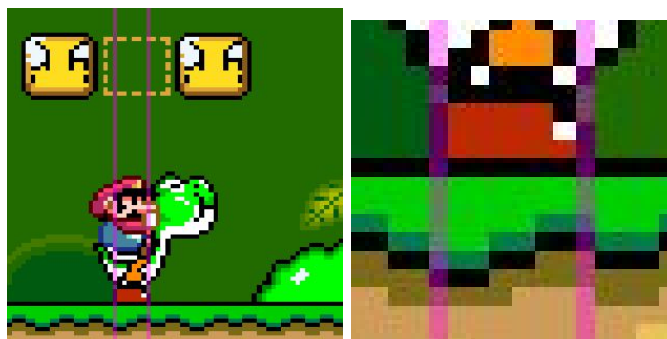
d. 28



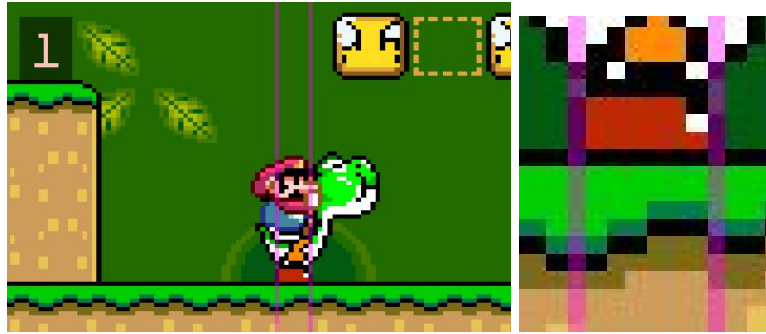
e. 80



f. 7F



g. 60



13. Stand on this pixel facing left



14. Using R then L, scroll the screen all the way right, then scroll the screen left so that you're in the middle of the screen.

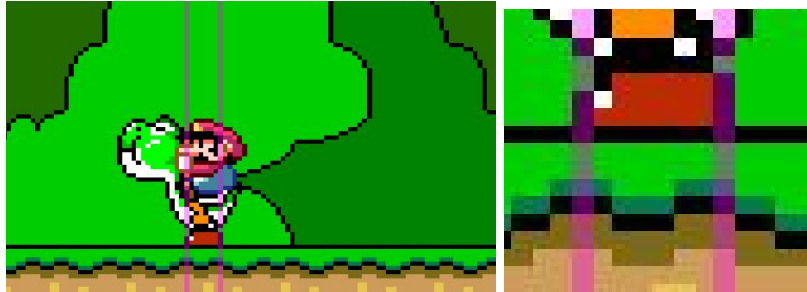
15. Press select and let mushroom fall into you

Multi-Byte Write

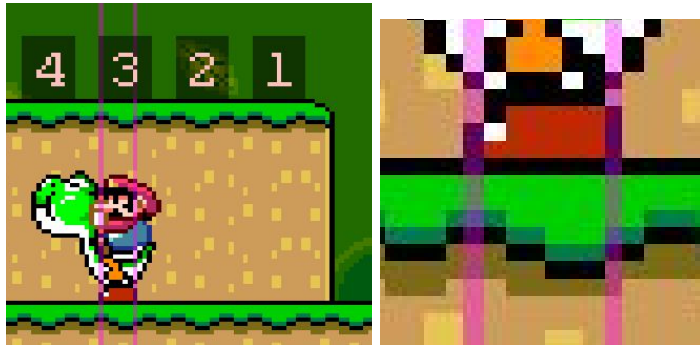
1. Start+select while riding Yoshi
2. Re-enter Y12 at the midway
3. Run to the right, past the 3 moles in the hills.
4. Just past the level's only infinite pit, there's a mole in the ground. Eat it.
5. Jump back left across the pit.
6. Continue right through the level until you see the P Switch.
7. Grab the P Switch in Yoshi's mouth (make sure you don't swallow it)
8. Go toward the beginning of the level, killing the two koopas and their shells along the way
9. Stand at this pixel and kick the P Switch upward (\$F4)



10. Continue toward the beginning of the level
11. Eat/spit the rightmost red koopa on the ledge (it's an extra one)
12. Spit shells
 - a. A5



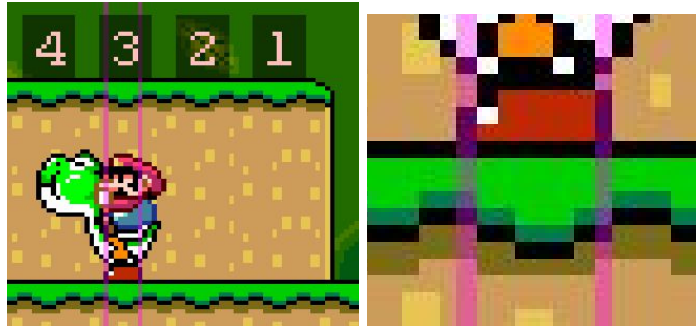
- b. EB



- c. A4



- d. EC



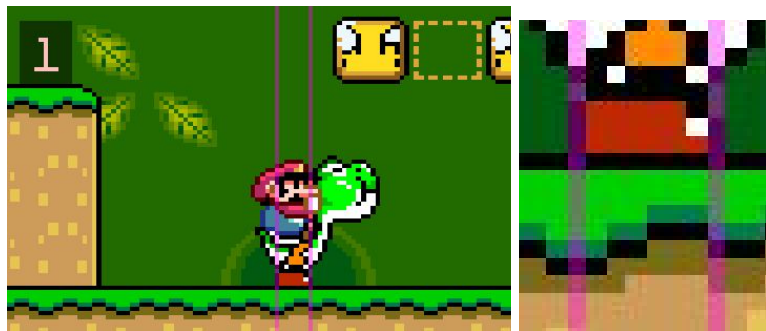
e. 97



f. F5



g. 60



13. Stand at this pixel facing right with yoshi, and dismount (\$7F)



14. Stand at this pixel facing left



15. Using R and L, screen scroll all the way right, then screen scroll left so that you're in the middle of the screen.

16. Press select and let the mushroom fall into Mario (you may jump, too)

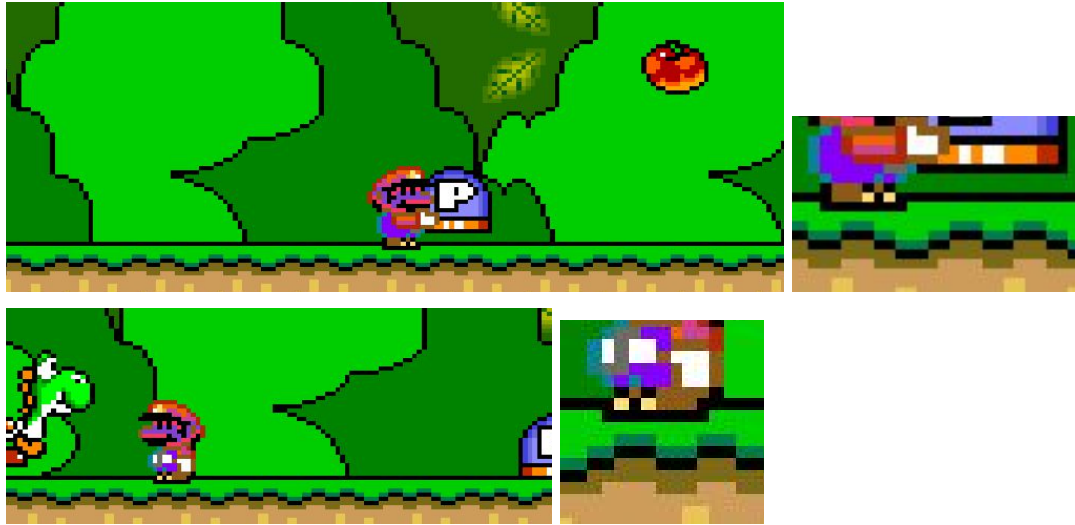
17. You'll need to repeat this procedure several times:

- a. Stand on a pixel facing right with Yoshi
- b. Dismount Yoshi
- c. Stand on a pixel facing right holding the P switch
- d. Kick the P switch up
- e. Stand on a pixel facing left
- f. Screen scroll all the way right
- g. Screen scroll so that you're in the middle of the screen
 - i. NOTE: The right and left screen scrolling isn't necessary if you walk to the pixel with the camera following Mario and don't overshoot the pixel, it's just a procedure to make sure the camera scroll is correct if you do overshoot.
- h. Press select and collect the mushroom (you may jump, too)

81



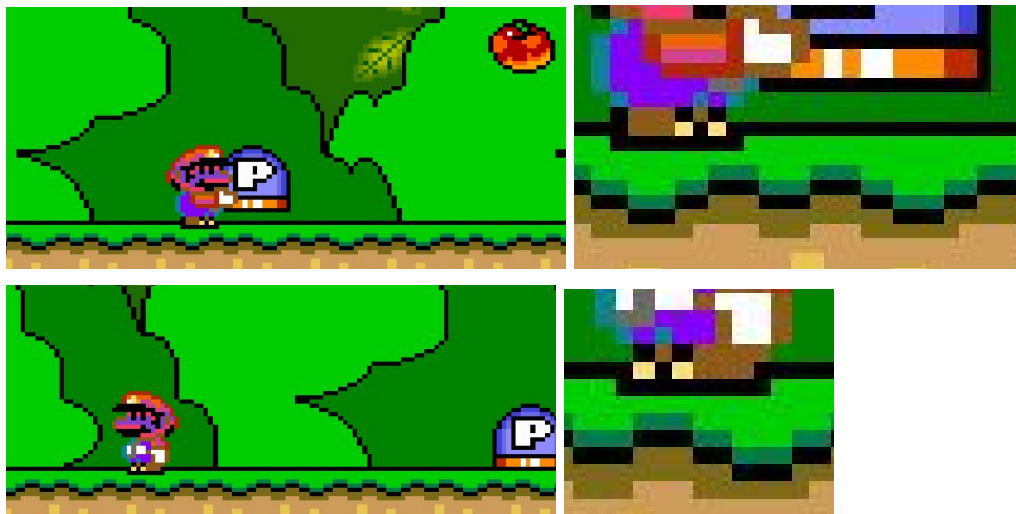
F3 (walk against P Switch and press Y and move a pixel to the right)



F2



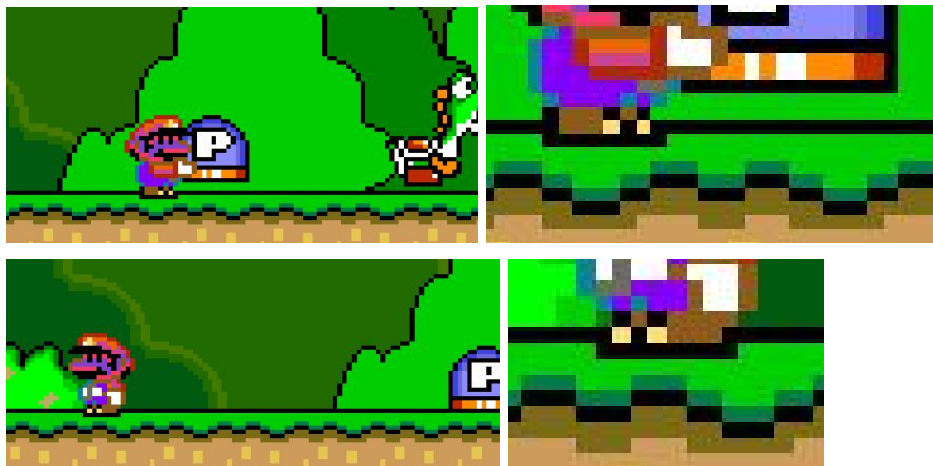
E9



94



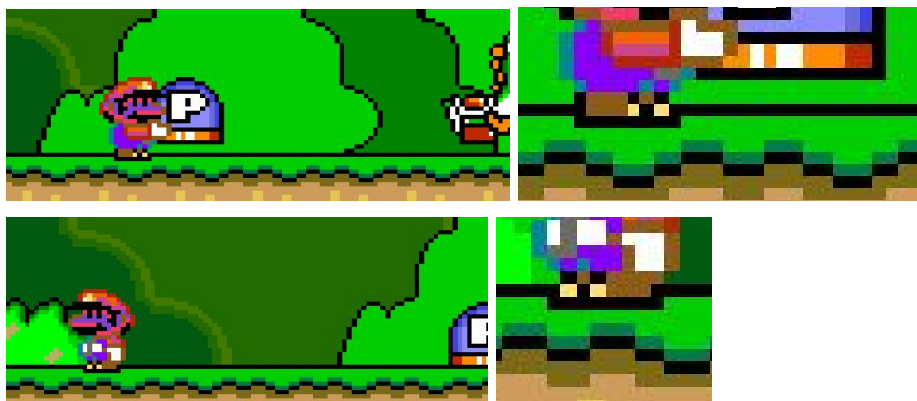
68



A4 (you can press B then A to jump off yoshi straight up, rather than risking pressing the P Switch by accident)



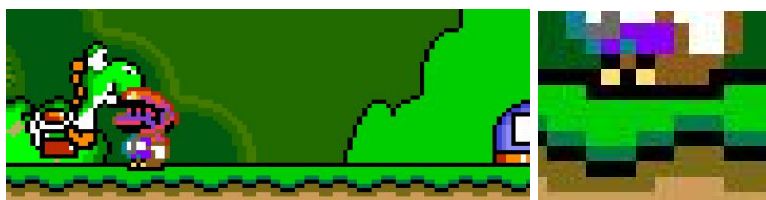
67 (walk against P Switch)



0D



6F



BF



6E (walk against P Switch)

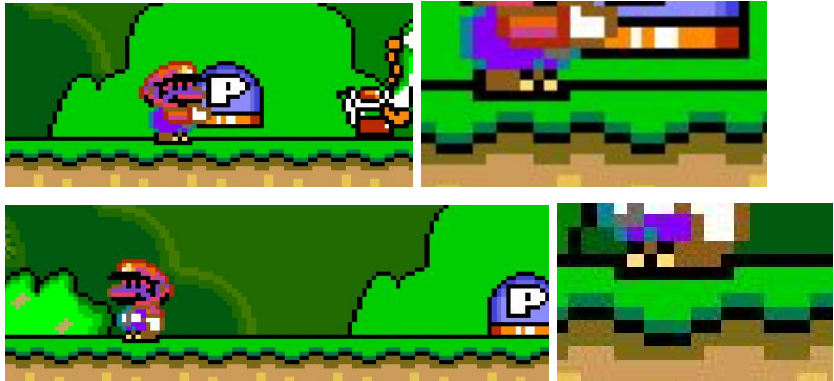


Coin count should become N9

8C



6D (walk against P Switch)



Now the coin counter is complete. Repeat the steps as above, but use the following coin counts instead of pictures. Remember that you should be facing right when placing Yoshi and the P Switch, and left when getting into place to get the mushroom. When moving Mario in place to receive the mushroom, always walk left from the P switch (the P switch will always be 28 pixels from the right edge of the screen when collecting the mushroom).

Yoshi	PSwch	Mario
A5	C3	54
A6	C2	53
L2	C1	52
22	C0	51
G4	B9	50

Now whenever you spin jump, the P switch will move left one pixel. This should happen naturally when you dismount yoshi, and will naturally place the P switch where it needs to be for the next write. This is indicated with a "-".

A5	D5	66
C5	- (D4)	65
C8	- (D3)	64
P5	- (D2)	63
F7	- (D1)	62
C5	- (D0)	61
N8	- (C9)	60
13	- (C8)	59
70	- (C7)	58
E0	- (C6)	57

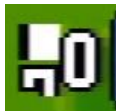
N4	-	(C5)	56
G4	-	(C4)	55
F0	-	(C3)	54

Jailbreak Installation

1. Grab the P Switch and bring it left until, while facing left, your coin count says 27 (the bonus star counter should say 16). **Don't overshoot by very much. If the bonus star counter hits 0 at this point, you'll crash the game.**
2. Kick the P switch upward and move to the right
3. Place Mario so that the coin count says A7.
4. Spin jump 17 times. Each time you spin jump, the bonus star counter will decrement by one. It should go just past 0 and end up looking like this:



5. For each coin count below, move Mario so that the coin counter displays the given amount, and then spin jump. Use the bonus star index display to help you remember where you are in this list. If you accidentally write a byte incorrectly, you can pick up the P Switch and move it to the right to redo one or more bytes. Pay attention to the bonus star index display as you do this.



Above index 200, the tens digit of the bonus star index display is a graphical glitch

255: A7
 254: A7
 253: C7
 252: D5
 251: D7
 250: E3



240-249

249: F2
 248: 48
 247: M6
 246: M8
 245: 16
 244: D6
 243: 6

242: 70

241: 32

240: 74



230-239

239: 74

238: 74

237: 74

236: A4

235: 6

234: 70

233: 32

232: 72

231: N5

230: 1

220-229

229: K8

228: O8

227: J6

226: P4

225: G5

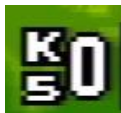
224: 7

223: 48

222: O8

221: J6

220: P3



210-219

219: I3

218: 1

217: 1

216: G0

215: H0

214: N5

213: C7

212: D1

211: C7

210: E3



200-209

209: 7
208: 4
207: G9
206: C7
205: D1
204: C5
203: E3
202: 0
201: 80
200: G9

100-199 display as 0-99 in the bonus star index display

199: 36
198: A0
197: 48
196: J4
195: P3
194: F1
193: 26
192: 26
191: 26
190: 64
189: K8
188: 5
187: K8
186: 48
185: M4
184: 23
183: G6
182: 58
181: 1
180: K8
179: 32
178: M4
177: 15
176: O0
175: 16
174: M4
173: 24
172: G6

171: P3
170: I3
169: G8
168: P1
167: E9
166: M3
165: O6
164: N9
163: A5
162: 4
161: K8
160: 6
159: J2
158: M3
157: L4
156: 15
155: A5
154: 4
153: K8
152: 2
151: J2
150: M2
149: L4
148: 58
147: 3
146: K8
145: D6
144: M2
143: O6
142: 26
141: 3
140: K8
139: D6
138: 22
137: G4
136: 52
135: K8
134: P0
133: G4
132: P1
131: G5
130: A7
129: 18

128: D3
127: 9
126: G9
125: P0
124: D3
123: 16
122: 41
121: 9
120: O0
119: 24
118: G5
117: 13
116: O0
115: H0
114: 32
113: 41
112: 21
111: G5
110: O7
109: K8
108: K0
107: 3
106: 0
105: F3
104: 2
103: 0
102: F3
101: O0
100: G9

Now onto the actual 0-99 in the bonus star index display

99: 1
98: 0
97: E1
96: 3
95: G9
94: O9
93: N0
92: 7
91: K8
90: O9
89: G4
88: 96

87: K2
86: C7
85: D1
84: C9
83: F9
82: K2
81: 4
80: 0
79: 9
78: 3
77: K8
76: P1
75: J6
74: 56
73: 0
72: 9
71: 0
70: 15
69: 41
68: P4
67: P4
66: 90
65: 92
64: 3
63: O6
62: C8
61: K2
60: P4
59: 0
58: F7
57: C7
56: D0
55: 0
54: J1
53: O6
52: 16
51: K2
50: 4
49: 79
48: F7
47: C7
46: D0
45: 65

44: J1
43: 3
42: G2
41: O5
40: K8
39: D6
38: 3
37: H5
36: F3
35: D6
34: 3
33: H5
32: F3
31: D6
30: P5
29: N1
28: G9
27: 1
26: H1
25: E1
24: 89
23: I3
22: G9
21: 32
20: J4
19: 1
18: E1
17: E0
16: C2
15: H1
14: G3
13: B2
12: O4

Now just keep spin jumping until the bonus star index display hits 0. The game will freeze.
Reset your console and the jailbreak should be installed.